Biological Wastes **34** (1990) 375–377

CONTENTS OF VOLUME 34

Number 1

A Survey of Broiler Litter Composition and Potential Value as a Nutrient Resource 1
A. H. STEPHENSON, T. A. McCASKEY & B. G. RUFFIN (USA)

Improvements in Solid-State Fermentation for Glucoamylase Production . . 11
ASHOK PANDEY (India)

Kinetic and Economic Considerations of Biogas Production Systems . . 21
B. K. BALA & M. A. SATTER (Bangladesh)

Impact of Animal Waste Lagoons on Ground-Water Quality 39
W. F. RITTER & A. E. M. CHIRNSIDE (USA)

The Effects of Using Various Types of Carbonaceous Substrate on UASB Granules and on Reactor Performance 55
J. W. MORGAN, J. A. S. GOODWIN, D. A. J. WASE & C. F. FORSTER (UK)

Short Communications

Growth of *Ornidia obesa* (Diptera: Syrphidae) Larvae on Decomposing Coffee Pulp 73
GERARDO LARDÉ (El Salvador)

Citric Acid Production in Liquid Waste from a Leaf-Protein Production Plant: Effects of Sugar and Potassium Ferrocyanide 77
SUNANDA CHANDA, SIBANI CHAKRABARTI & SHYAM MATAI (India)

Potency of Orange Peel as a Mosquito Fumigant 83
H. U. ANASO, L. E. ILOUNO, D. ONUORAH & S. C. UMERIE (Nigeria)

Announcements 89

Number 2

Water Hyacinth Growth in Anaerobic Digester Effluents 91
K. K. MOORHEAD, D. A. GRAETZ & K. R. REDDY (USA)

A Corrected Method for Dry Matter Determination for Use in Anaerobic Digester Control. 101
G. HAYWARD & V. PAVLICIK (Canada)

Upgrading an Aerated Lagoon to a Sequencing Batch Reactor for Piggery Waste Treatment 113
S. H. WONG, M. W. WU & C. C. CHOI (Hong Kong)

Biological Wastes (**34**) (1990)—© 1990 Elsevier Science Publishers Ltd, England. Printed in Great Britain

Enrichment of Ground Corn Cobs with Cellulolytic Microorganisms . . . 123
SUMATE TANTRATIAN & MARION L. FIELDS (USA)

Psychrophilic Anaerobic Digestion of Animal Manure: Proposed Design Methodology 133
L. M. SAFLEY, JR & P. W. WESTERMAN (USA)

Odour and Ammonia Emissions Following the Spreading of Aerobically-Treated Pig Slurry on Grassland 149
B. F. PAIN, V. R. PHILLIPS, C. R. CLARKSON, T. H. MISSELBROOK, Y. J. REES & J. W. FARRENT (UK)

Short Communications

A Preliminary Study on Biogas Production from Cowdung Using Fixed-Bed Digesters 161
SANDHYA XAVIER & KRISHNA NAND (India)

Flavonol Glycosides from Waste Broad Bean Aerial Parts 167
FRANCISCO TOMÁS-LORENTE, MANUELA M. GARCÍA-GRAU, FEDERICO FERRERES & FRANCISCO A. TOMÁS-BARBERÁN (Spain)

The Effects of Mango Seed Kernel Meal (MSKM) on the Performance of Growing Rats 171
DANIEL B. OKAI & JOHN ABOAGYE (Ghana)

Announcements 177

Number 3

Cell Wall Content and Rumen Dry Matter Disappearance of γ-irradiated Wood By-products 181
G. FLACHOWSKY, M. BÄR, SABINE ZUBER & K. TIROKE (Germany)

Start-up Regimes for Anaerobic Fluidised Systems Treating Dairy Wastewater . 191
DAVID M. L. DA MOTTA-MARQUES, SANDRA M. CAYLESS & JOHN N. LESTER (UK)

Anaerobic Digestion of Wastes Containing Pyrolignitic Acids 203
V. ANDREONI, P. BONFANTI, D. DAFFONCHIO, C. SORLINI & M. VILLA (Italy)

Anaerobic Digestion of Pesticide-Plant Wastewater 215
CHIU-YUE LIN (Taiwan)

Fermentation Characteristics of Swine Waste Ensiled with Wheat Straw and Cane Molasses 227
G. IÑIGUEZ-COVARRUBIAS, M. DE LA TORRE-MARTINEZ, J. A. CUARÓN-IBARGÜENGOITIA, P. PÉREZ-GAVILÁN & I. MAGAÑA-PLAZA (Mexico)

Degradation of Isovalerate and 2-Methylbutyrate in an Anaerobic Trickling Filter 241
A. JIMENO, J. J. BERMÚDEZ, M. CÁNOVAS-DÍAZ, A. MANJÓN & J. L. IBORRA (Spain)

Physico-chemical and Microbiological Aspects in Composting of Grape Pulps . 251
D. FAURE & A. M. DESCHAMPS (France)

Odour and Ammonia Emissions Following the Spreading of Anaerobically-Digested Pig Slurry on Grassland 259
B. F. PAIN, T. H. MISSELBROOK, C. R. CLARKSON & Y. J. REES (UK)

Number 4

Publisher's Announcement 269

Feed Value and Feeding of Wastelage made from Distillers Grain Solubles, Pig Slurry Solids and Ground Straw Treated with Urea and NaOH 271
G. FLACHOWSKY, P. BALDEWEG, K. TIROKE, H. KÖNIG & ASTRID SCHNEIDER (Germany)

Fermentation Characteristics, Digestibility and Performance of Ensiled Swine Waste, Wheat Straw and Cane Molasses Fed to Sheep 281
G. IÑIGUEZ-COVARRUBIAS, J. A. CUARÓN-IBARGÜENGOITIA, P. PÉREZ-GAVILÁN, M. DE LA TORRE-MARTINEZ & I. MAGAÑA-PLAZA (México)

Aerobic Treatment of Pesticide-Plant Wastewater 301
CHIU-YUE LIN (Taiwan)

Production and Evaluation of a Yeast Utilizing an Industrial Waste . . . 313
E. W. JWANNY, K. M. GAAFAR, M. M. RASHAD, N. K. EL-SAYED & S. A. MOHARIB (Egypt)

Static Pile, Passive Aeration Composting of Manure Slurries Using Peat as a Bulking Agent 323
S. P. MATHUR, N. K. PATNI & M. P. LÉVESQUE (Canada)

Agronomic Potential of Brewers' Spent Grains 335
J. S. C. MBAGWU & G. C. EKWEALOR (Nigeria)

Vermial Virucidal Activity: Implications for Management of Pathogenic Biological Wastes on Land 349
LAKSHMI AMARAVADI, MICHAEL S. BISESI & ROBERT F. BOZARTH (USA)

Bioenergy Potential of Eight Common Aquatic Weeds 359
S. A. ABBASI, P. C. NIPANEY & G. D. SCHAUMBERG (India)

Effects of Hydrolysis Conditions on the Recovery of Amino Acids from New Zealand-Produced Wheat Bran and Pollard. 367
A. J. BRODERICK, L. L. RHODES & H. R. GARTHWAITE (New Zealand)